



GENERAC® STANDBY GENERATORS

70 kW

Liquid-Cooled Engine Generator Sets

Standby Power Rating

Model QT070 (Bisque) - 70 kW 60Hz

INCLUDES:

- Generac Naturally Aspirated Gaseous Fueled 6.8L Engine
- Two Line LCD Tri-lingual Digital Nexus™ Controller
- Sound Attenuated Enclosure
- Isochronous Electronic Governor
- Closed Coolant Recovery System
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- $\pm 1\%$ Voltage Regulation
- Natural Gas or LP Operation
- 2 Year Limited Warranty
- UL 2200 Listed



QUIET-TEST™

Meets 2010 EPA Emission Regulations

Meets CA/MA emissions requirement with optional catalyst

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- **TEST CRITERIA:**
 - ✓ **PROTOTYPE TESTED**
 - ✓ **SYSTEM TORSIONAL TESTED**
 - ✓ **NEMA MG1-22 EVALUATION**
 - ✓ **MOTOR STARTING ABILITY**
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine. An unequalled $\pm 1\%$ voltage regulation.
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- **GENERAC TRANSFER SWITCHES.** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems and controls for total system compatibility.



GENERATOR SPECIFICATIONS

TYPE	Synchronous
ROTOR INSULATION	Class H
STATOR INSULATION	Class H
TELEPHONE INTERFERENCE FACTOR (TIF)	< 50
ALTERNATOR OUTPUT LEADS 3-PHASE/1-PHASE	6/4 wire
BEARINGS	Sealed Ball
COUPLING	Flexible Disc
LOAD CAPACITY (STANDBY RATING)	70 kW
EXCITATION SYSTEM	Brushless

VOLTAGE REGULATION

TYPE	Full Digital
SENSING	Three Phase
REGULATION	± 1%

GENERATOR FEATURES

Revolving field heavy duty generator Directly connected to the engine Operating temperature rise 120 °C above a 40 °C ambient Insulation is Class H rated at 130 °C rise All models are fully prototyped tested

ENCLOSURE FEATURES

Aluminum all weather protective enclosure options available	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.

ENGINE SPECIFICATIONS

MAKE	Generac
MODEL	V-type
CYLINDERS	10
DISPLACEMENT	6.8 Liter
BORE	3.55
STROKE	4.17
COMPRESSION RATIO	9:1
INTAKE AIR SYSTEM	Naturally Aspirated
LIFTER TYPE	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION	Isochronous
STEADY STATE REGULATION	± 0.25%

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER	Full flow spin-on cartridge
CRANKCASE CAPACITY	5 Quarts

ENGINE COOLING SYSTEM

TYPE	Closed
WATER PUMP	Belt driven
FAN SPEED	2300
FAN DIAMETER	22 inches
FAN MODE	Pusher

FUEL SYSTEM

FUEL TYPE	Natural gas, propane vapor
CARBURETOR	Down Draft
SECONDARY FUEL REGULATOR	Standard
FUEL SHUT OFF SOLENOID	Standard
OPERATING FUEL PRESSURE	11" - 14" H ₂ O

ELECTRICAL SYSTEM

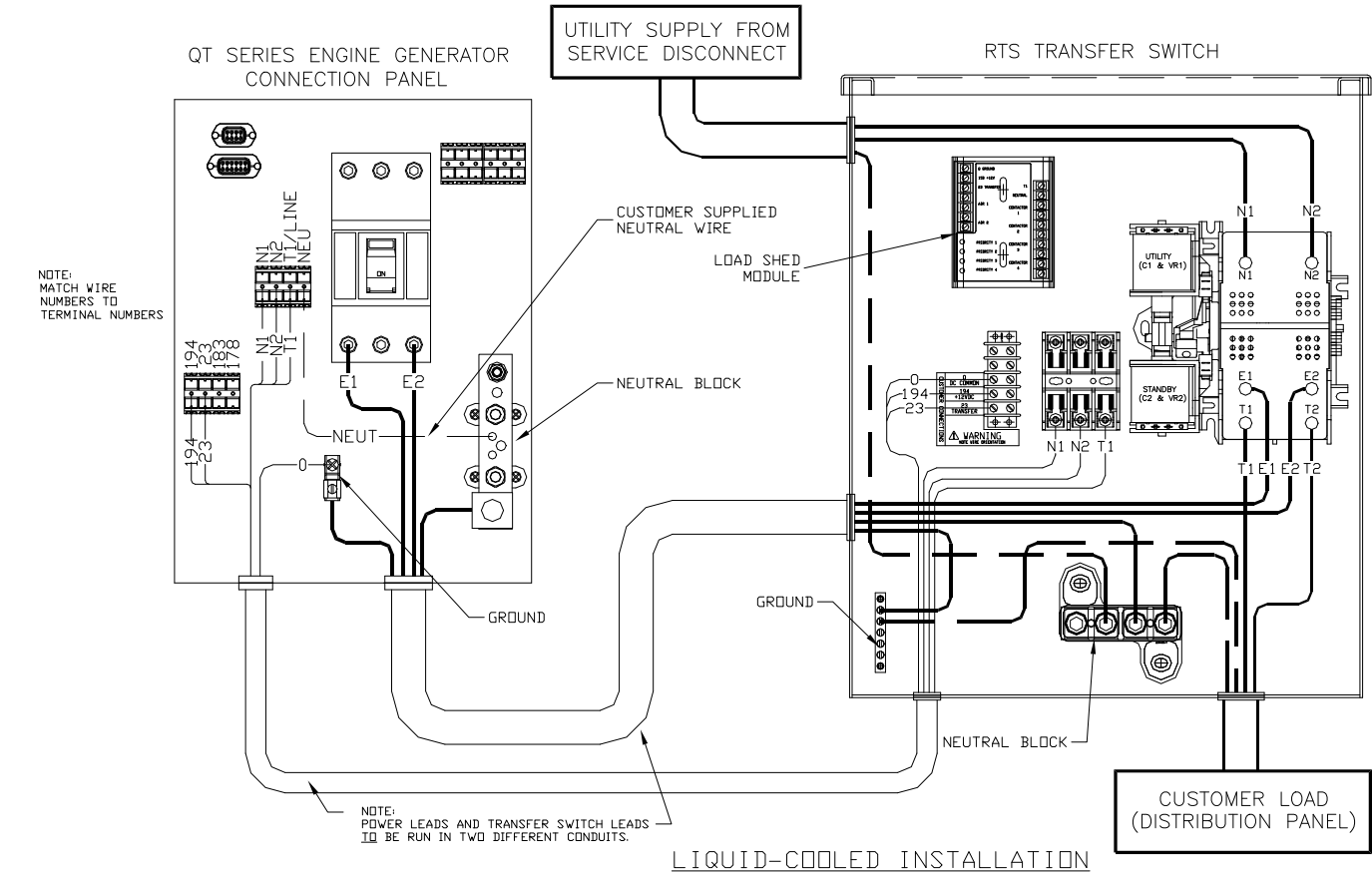
BATTERY CHARGE ALTERNATOR	12V 30 Amp
SMART BATTERY CHARGER	12V, 2 Amp
RECOMMENDED BATTERY	Group 24F, 12V, 525CCA
SYSTEM VOLTAGE	12 Volts

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). (All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271).

OPERATING DATA					
KW RATING (LP/NG)	70				
ENGINE SIZE	6.8 Liter V-10				
GENERATOR OUTPUT VOLTAGE/KW - 60Hz	LP	Rated AMP	NG	Rated AMP	CB Size
120/240V, 1-phase, 1.0 pf	67	279	64	267	300
120/208V, 3-phase, 0.8 pf	70	243	67	232	300
120/240V, 3-phase, 0.8 pf	70	210	67	201	250
277/480V, 3-phase, 0.8 pf	70	105	67	101	125
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%					
Single phase or 208-240 3-phase	145				
480V 3-phase	160				
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)	Natural Gas		Propane		
	(ft³/hr.)		(gal/hr.)		cu ft/hr
Exercise cycle	110		1.20		44.2
25% of rated load	260		2.85		104.9
50% of rated load	500		5.46		200.9
75% of rated load	696		7.62		280.4
100% of rated load	1020		11.17		411
ENGINE COOLING					
Air flow (inlet air including alternator and combustion air)	ft³/min.	5200			
System coolant capacity	US gal.	4.5			
Heat rejection to coolant	BTU/hr.	287,000			
Max. operating air temp. on radiator	°C (°F)	60 (150)			
Max. ambient temperature	°C (°F)	50 (140)			
COMBUSTION AIR REQUIREMENTS					
Flow at rated power 60 Hz	cfm	205			
SOUND EMISSIONS IN DBA					
Exercising at 7 meters		67			
Normal operation at 7 meters		72			
EXHAUST					
Exhaust flow at rated output 60 Hz	cfm	557			
Exhaust temp. at muffler outlet	°C (°F)	477 (890)			
ENGINE PARAMETERS					
Rated synchronous RPM	60 Hz	1800			
POWER ADJUSTMENT FOR AMBIENT CONDITIONS					
Temperature Deration					
	3% for every 10 °C above - °C	25			
	1.65% for every 10 °F above - °F	77			
Altitude Deration					
	1% for every 100 m above - m	183			
	3% for every 1000 ft. above - ft.	600			

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

KW rating is based on LPG Fuel and may derate with natural gas.



CIRCUIT BREAKER WIRE AND CONDUIT SIZE

kW	VOLTS	CB AMPS	LUG SIZE
70	240 1 Ø	300	(1) 600 mcm to #4 or (2) 250 mcm to 1/0
70	240 3 Ø	250	(1) 600 mcm to #4 or (2) 250 mcm to 1/0
70	208 3 Ø	250	(1) 600 mcm to #4 or (2) 250 mcm to 1/0
70	480 3 Ø	125	#6 to 300 mcm

NEXUS™ CONTROL FEATURES

2-Line Plain Text LCD Display	Simple user interface for ease of operation
Mode Switch	
-Auto	Automatic Start on Utility failure. 7 day exerciser
-Off	Stops unit. Power is removed. Control and charger still operate.
-Manual/Test (start)	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Programmable start delay between 10-30 seconds	Standard
Engine Start Sequence	Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration)
Engine Warm-up	5 seconds
Engine Cool-Down	1 minute
Starter Lock-out	Starter cannot re-engage until 5 sec. after engine has stopped.
Smart Battery Charger	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Automatic Low Oil Pressure Shutdown	Standard
Overspeed Shutdown	Standard, 72Hz
High Temperature Shutdown	Standard
Overcrank Protection	Standard
Safety Fused	Standard
Failure to Transfer Protection	Standard
Low Battery Protection	Standard
50 Event Run Log	Standard
Future Set Capable Exerciser	Standard
Incorrect Wiring Protection	Standard
Internal Fault Protection	Standard
Common External Fault Capability	Standard
Governor Failure Protection	Standard

*Single and three phase connections may vary , refer to the owner’s manual for specific connection information.

WEIGHT DATA				
ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT (ENGINE ONLY) KG (LBS)	WEIGHT (WOODS CRATE AND ENGINE) KG (LBS)	SUPPLYING WEIGHT (XKD AND GENSE) KG (LBS)
8L/70KW	ALUMINUM	925 (2040)	79 (175)	1005 (2215)

SERVICE ITEM ACCESSIBILITY CHART		
SERVICE ITEM	5.4L 55KW	6.8L 70KW
OIL FILL CAP	THRU RIGHT FRONT DOOR	THRU RIGHT FRONT DOOR
OIL DIP STICK	THRU LEFT FRONT DOOR	THRU LEFT FRONT DOOR
OIL FILTER	THRU LEFT FRONT DOOR	THRU LEFT FRONT DOOR
OIL DRAIN HOSE	THRU RIGHT FRONT DOOR	THRU RIGHT FRONT DOOR
RADIATOR DRAIN HOSE	THRU LEFT FRONT DOOR	THRU LEFT FRONT DOOR
AIR CLEANER ELEMENT	THRU LEFT FRONT DOOR	THRU LEFT FRONT DOOR
SPARK PLUGS	BOTH FRONT DOORS	BOTH FRONT DOORS
MUFFLERS	SEE NOTE 6	SEE NOTE 6
FAN BELT	THRU LEFT FRONT DOOR	THRU LEFT FRONT DOOR
BATTERY	THRU RIGHT REAR DOOR	THRU RIGHT REAR DOOR

NOTES:

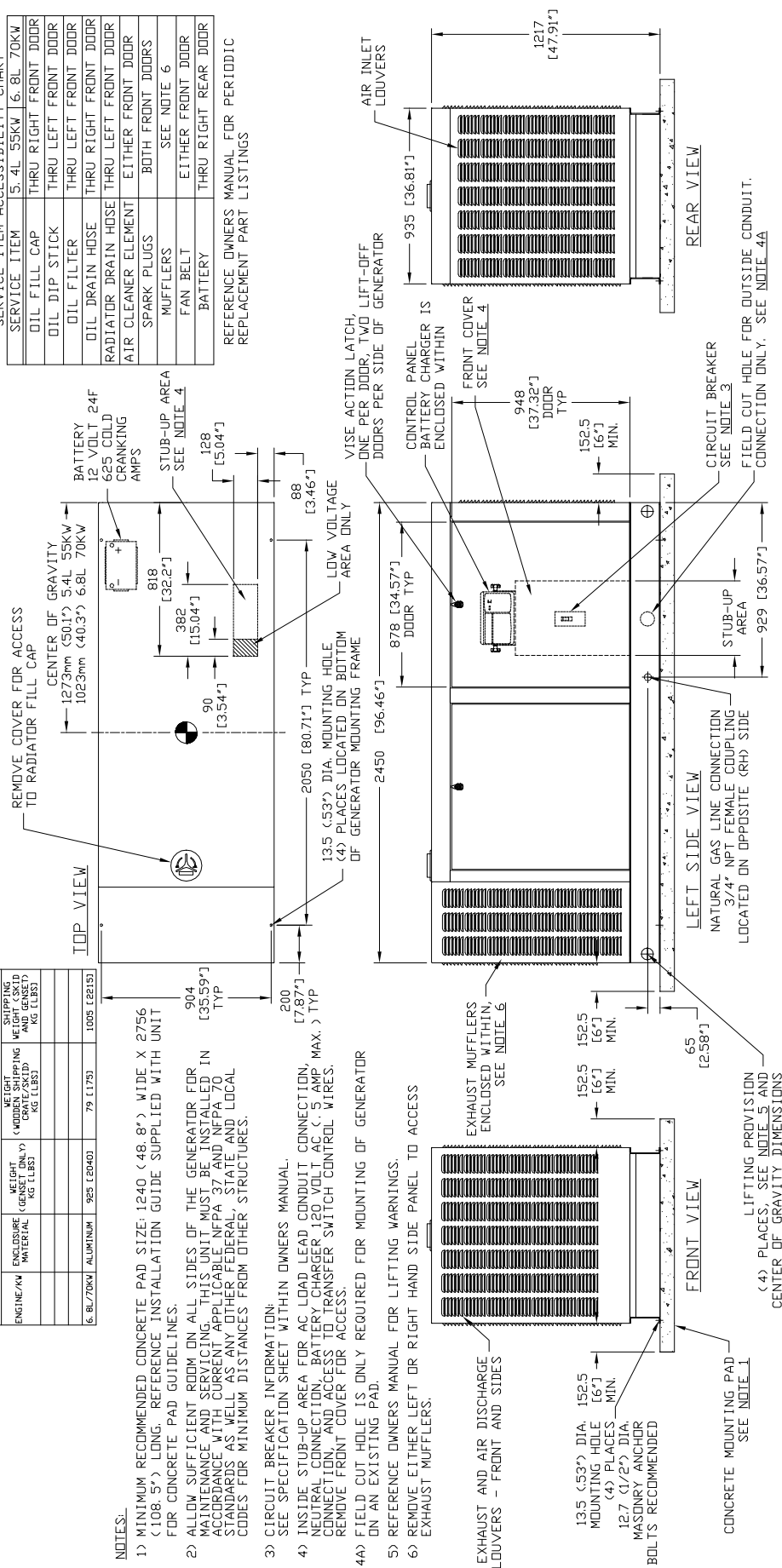
- 1) MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1240 (48.8") WIDE X 2756 (108.5") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
- 2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.
- 3) CIRCUIT BREAKER INFORMATION:
SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL.
- 4) INSIDE STUB-UP AREA FOR AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (5 AMP MAX.) TYPE CONNECTION, AND ACCESS TO TRANSFER SWITCH CONTROL WIRES. REMOVE FRONT COVER FOR ACCESS.
- 4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.
- 5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
- 6) REMOVE EITHER LEFT OR RIGHT HAND SIDE PANEL TO ACCESS EXHAUST MUFFLERS.

EXHAUST AND AIR DISCHARGE -
LOUVERS - FRONT AND SIDES

13.5 (.53") DIA. 152.5
MOUNTING HOLE [6"] -
(4) PLACES MIN.

12.7 (1/2") DIA.
MASONRY ANCHOR
BOLTS RECOMMENDED

CONCRETE MOUNTING PAD -
SEE NOTE 1



Model #	Product	Description
5632	Cold Weather Kit	If the temperature regularly falls below 32° F, install a cold weather kit to maintain optimal battery temperature. Kit consists of battery warmer with thermostat built into the wrap.
5620	Extreme Cold Weather Kit	Recommended where the temperature regularly falls below 32° F for extended periods of time. For liquid cooled units only.
5651	Base Plug Kit	Add base plugs to the base of the generator to keep out debris.
5703	Paint Kit	Bisque Kit
5660	Scheduled Maintenance Kit	The Liquid-Cooled Scheduled Maintenance Kits offer all the hardware necessary to perform a complete maintenance on Generac liquid cooled generators.
5928	Nexus Wireless Remote	Completely wireless and battery powered, Generac's Nexus wireless remote monitor provides you with instant status information without ever leaving the house.
5951	Advanced Nexus Wireless Remote	Remotely control generator functions with the advanced model's LCD display. In addition to remote testing of the generator, set the exercise cycle and maintenance interval reminders.
5937	DLM Load Control Module (50 Amps)	DLM Modules are used in conjunction with the Nexus Smart Switch to increase its load management capabilities. It gives the Nexus Smart Switch additional load management flexibility not found in any other transfer switch.